ELKTONIA PARK & CARR'S **BEACH CONCEPT**

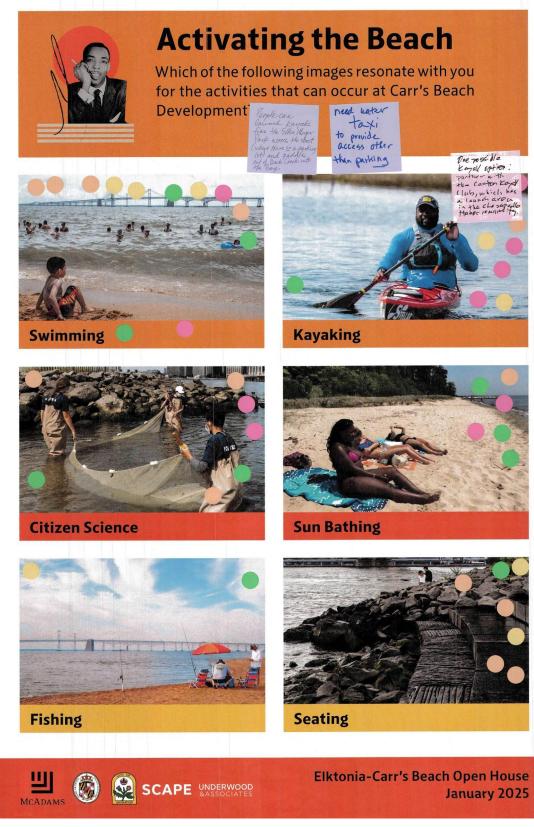


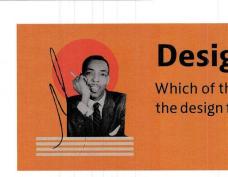
Annapolis and Anne Arundel County

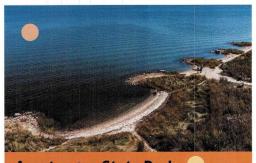


SCAPE UNDERWOOD &ASSOCIATES

ENGAGEMENT OPEN HOUSE BOARDS







Assateague State Park



Matapeake Beach

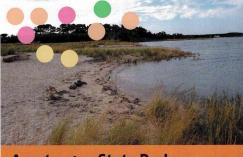




CARR'S AND ELKTONIA BEACH February, 2025

Design of the Beach

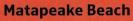
Which of the following images resonate with you for the design features at the Carr's Beach Development?

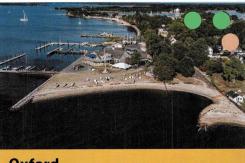


Assateague State Park





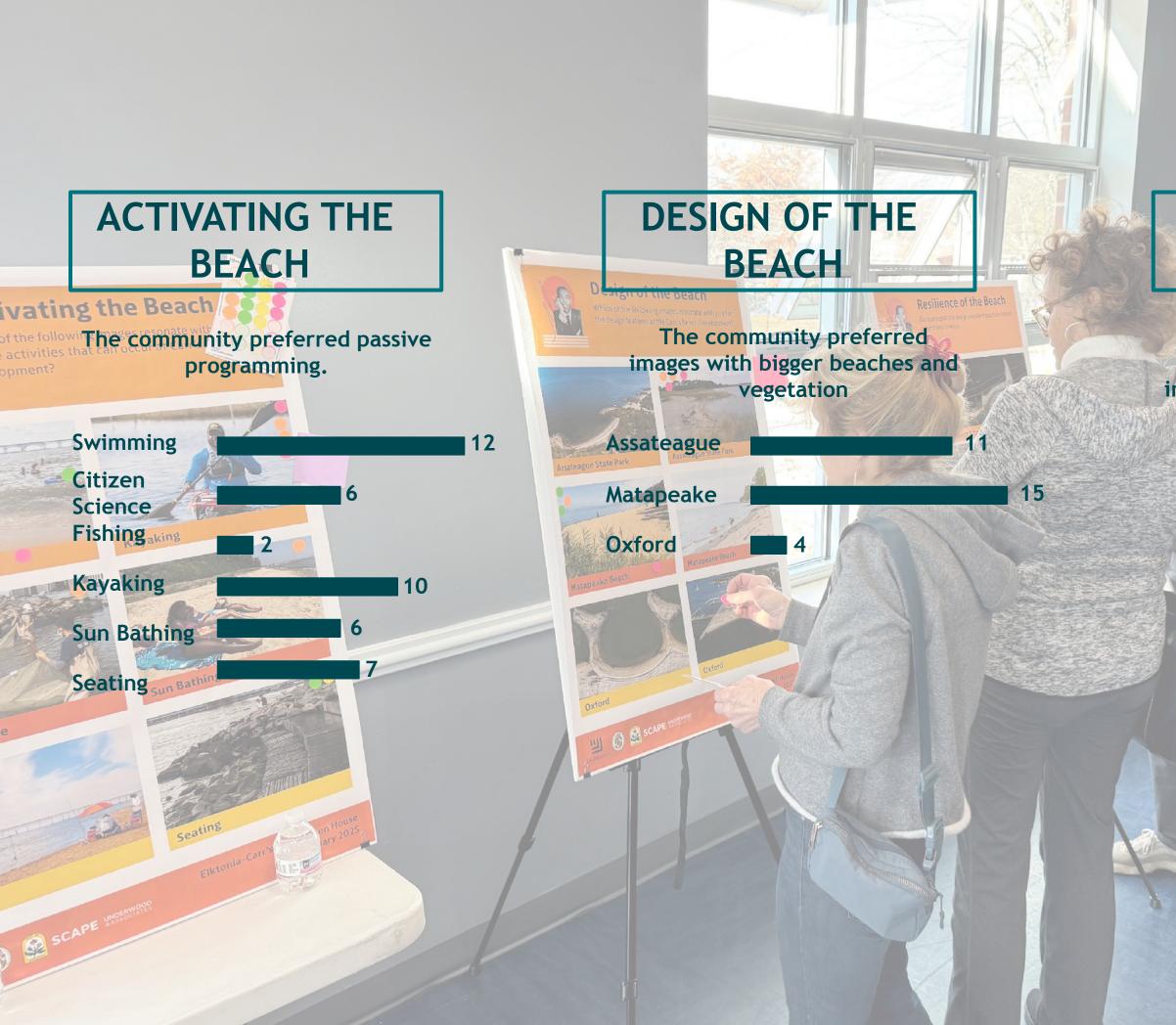




Oxford

Elktonia-Carr's Beach Open House January 2025





RESILIENCE OF THE BEACH

The community showed appreciation for the technical influences that inform the beach redesign. They are strong advocates for this proejct.

Residents to the south from Chesapeake Harbor expressed multiple times the desire for this project to have a larger improvement including their beach.

A BEACH THAT CANNOT SUPPORT PUBLIC GATHERING & CELEBRATION

THE NARROW BEACH IS VULNERABLE TO SEA LEVEL RISE & EROSION

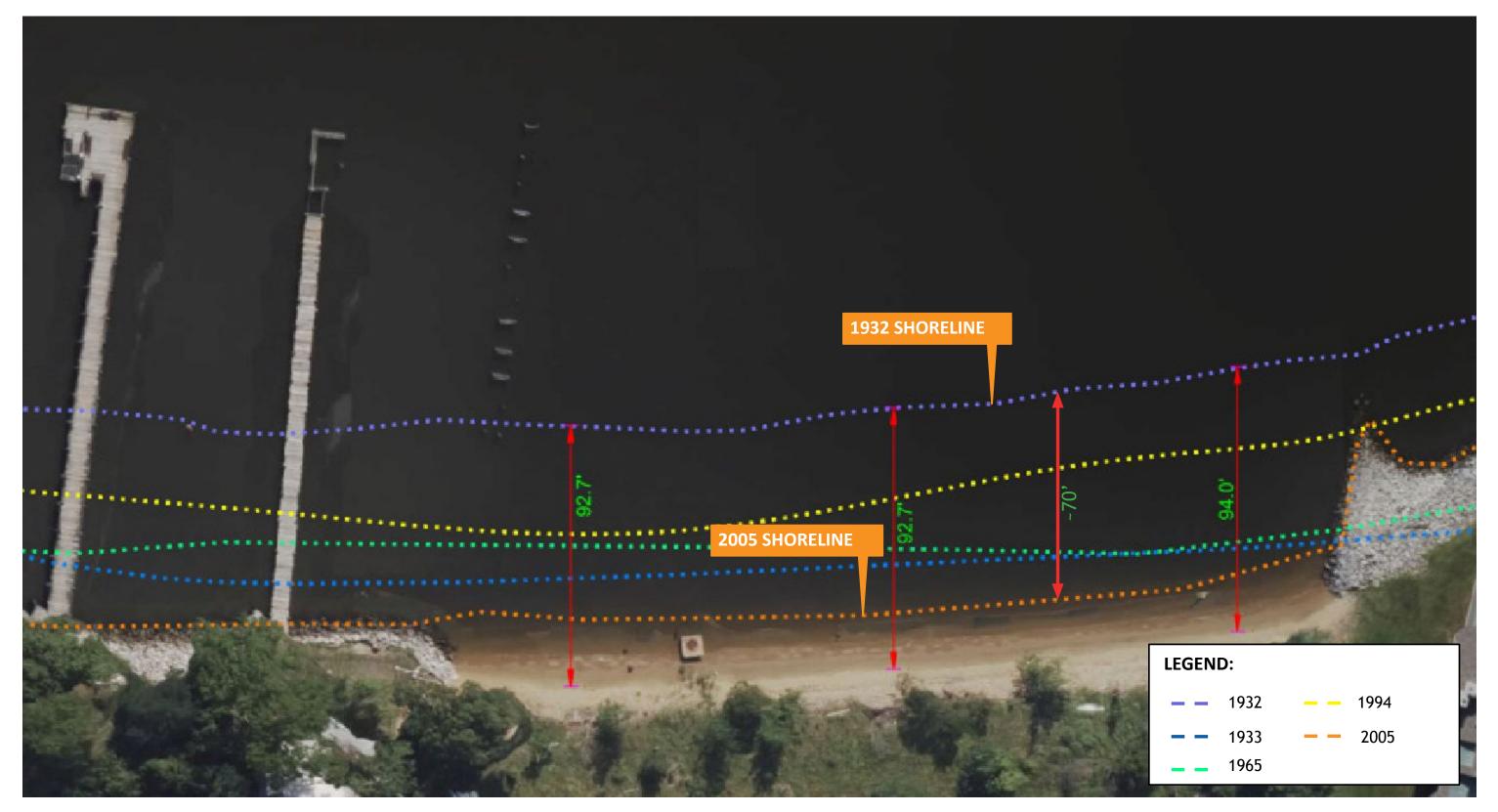






PROJECTED SEA LEVEL RISE & TIDAL FLOODING

SINCE 1994 CARR'S BEACH HAS ERODED ALMOST 60'



PROJECTED SEA LEVEL RISE & TIDAL FLOODING

WITH 2' OF SLR THE BEACH AS YOU KNOW IT IS GONE



CHESAPEAKE BAY

WHEN WILL 2' OF SEA LEVEL RISE HAPPEN?

Tide Gauge: Annapolis, MD

-4

ear	5th percentile	50th percentile (High tolerance for flood risk)	83rd-95th percentile with additional ice loss (Low tolerance for flood risk)
2040	0.50	0.92	1.3
2050	0.76	1.23	1.6
2060	1.02	1.52	2.3
2070	1.26	1.85	3.0
2080	1.49	2.16	3.6
2090	1.68	2.45	4.3
2100) <u>1.77</u>	2.78	4.9

-5

-5

DESIGN CRITERIA

ENVIRONMENTAL CRITERIA

IMPROVE SHORELINE & UPLAND HABITAT, IMPROVE WATER QUALITY

STABILIZE THE SHORELINE TO SLOW FUTURE EROSION

INTEGRATE FLOOD RESILIENCE INTO THE BEACH DESIGN

SOCIAL CRITERIA

CREATE A WIDE BEACH TO SUPPORT PUBLIC GATHERING

CELEBRATE THE BEACH'S CULTURAL HISTORY

RESTORE THE PHYSICAL & EMOTIONAL CONNECTION WITH THE BAY

OPERATIONAL CRITERIA

SUPPORT PUBLIC GATHERING & SWIMMING USES

> RELOCATE THE MANHOLE STRUCTURE

DESIGN SHOULD PLAN FOR BEACH OPERATIONS TO CONTINUE WITH 2' OF SEA LEVEL RISE

CARR'S BEACH TODAY

DESIGN PARAMETERS



SLOW/STOP EROSION



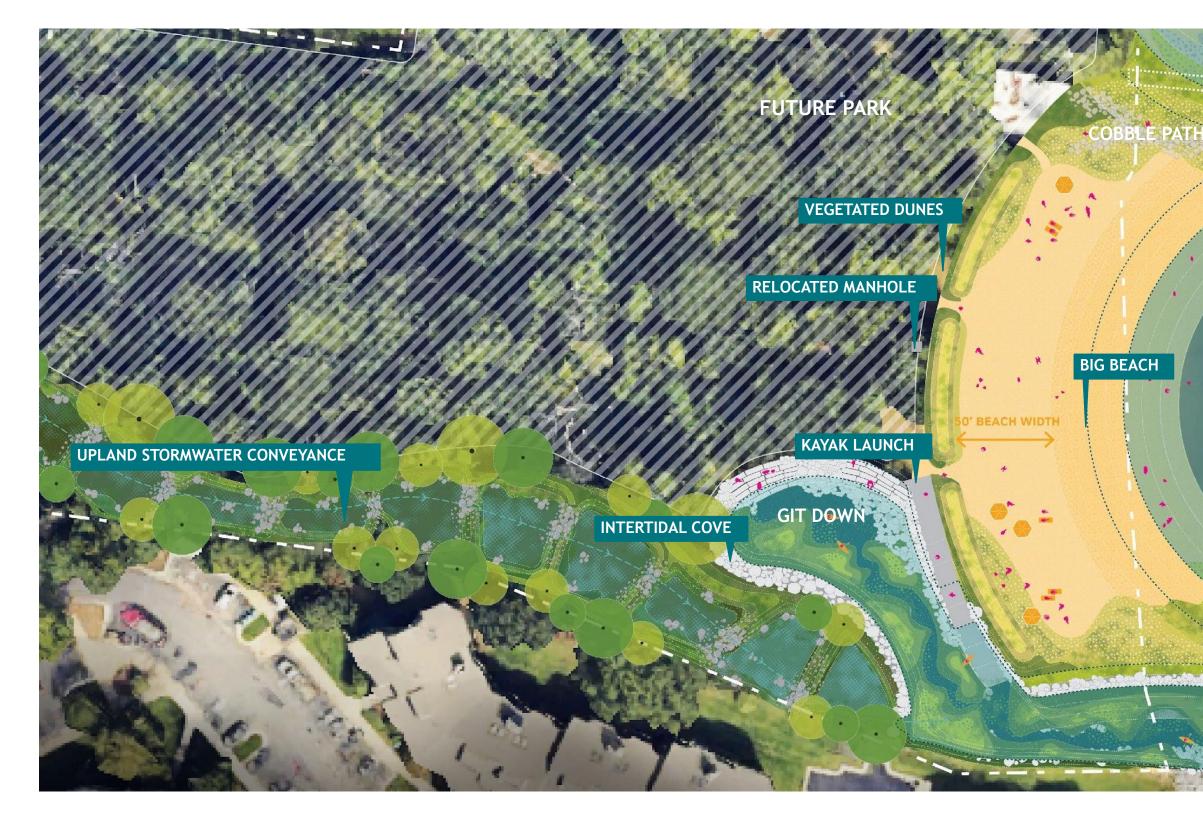
DESIGN FOR 2' OF SEA LEVEL RISE

INCREASE HABITAT & IMPROVE WATER QUALITY



8

CARR'S BEACH FUTURE - ENLARGEMENT





EXISTING PIER

MHW FUTURE (3.02')

CHESAPEAKE BAY

LIVING HEADLANDS





BEACH PROGRAM



Swimming



Kayaking



Citizen Science



Fishing



Sun Bathing



Seating

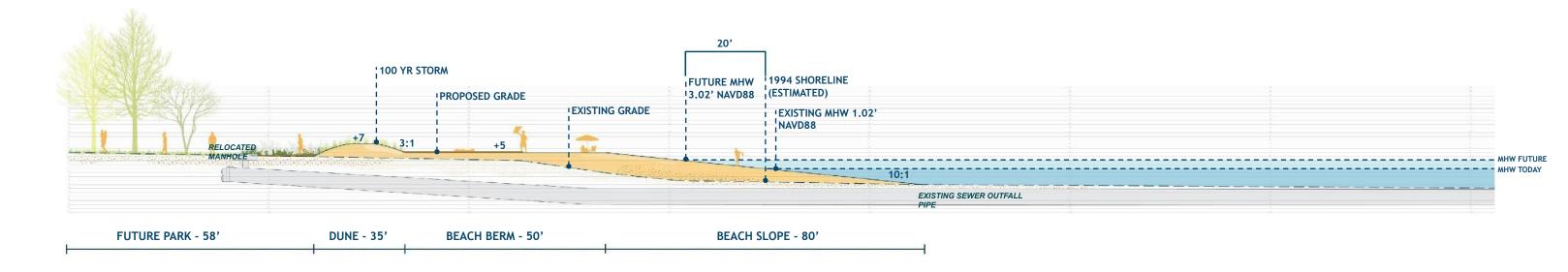


EXISTING CONDITION

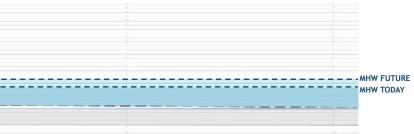
CARR'S BIG BEACH SECTION

EXISTING PARK AND BEACH

PROPOSED DESIGN



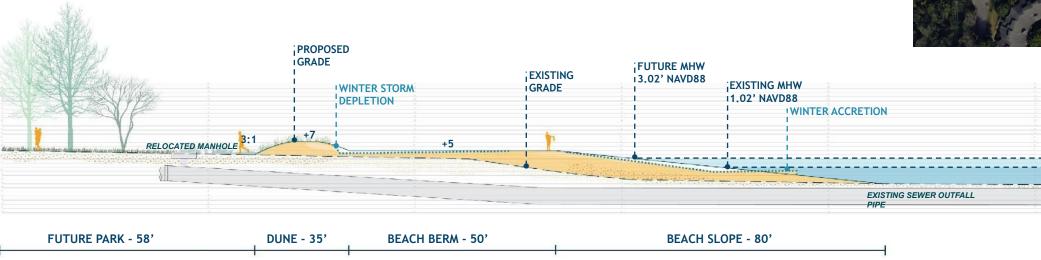






ANNUAL SHORELINE MOVEMENT SECTION

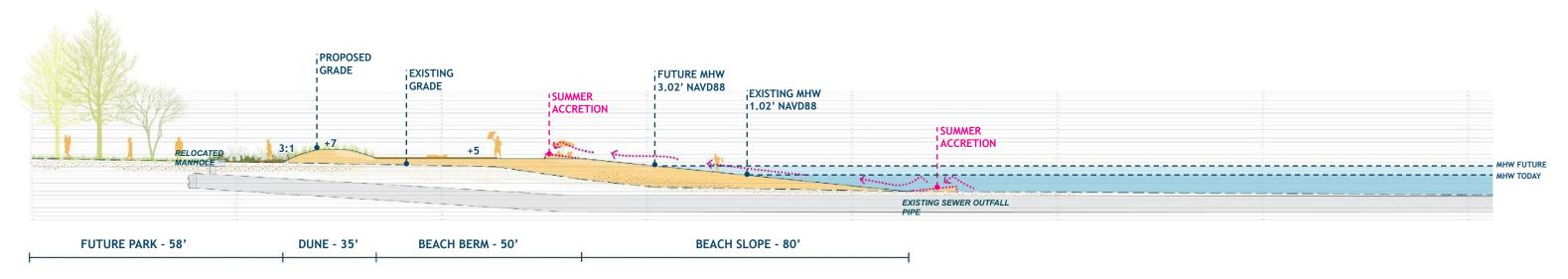




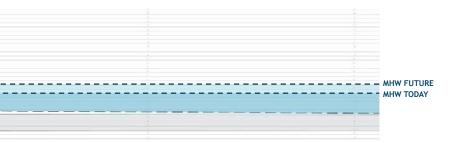
WINTER BEACH MOVEMENT

SUMMER BEACH MOVEMENT

RELOCATED MANHOLE



ELKTONIA PARK & CARR'S BEACH February, 2025

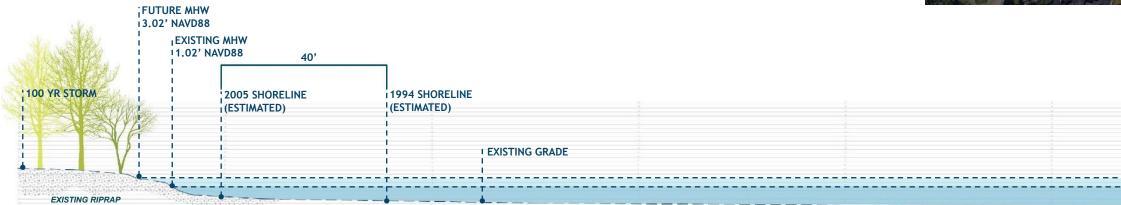




IMMERSIVE LIVING HEADLAND SECTION

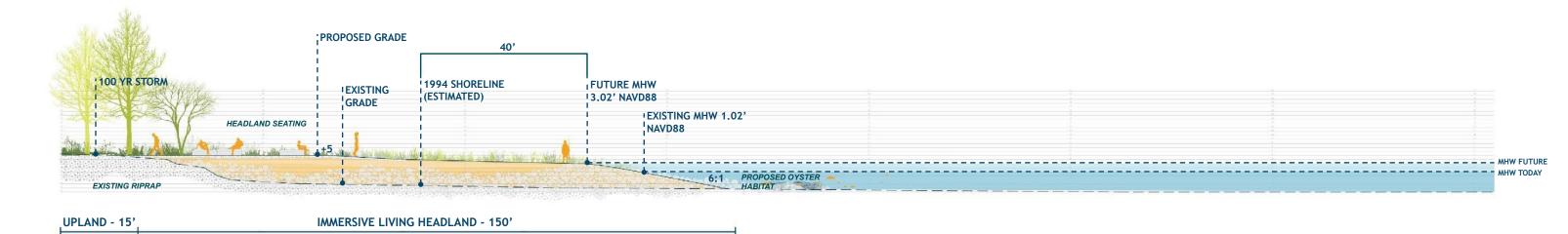






UPLAND - 15'

PROPOSED DESIGN





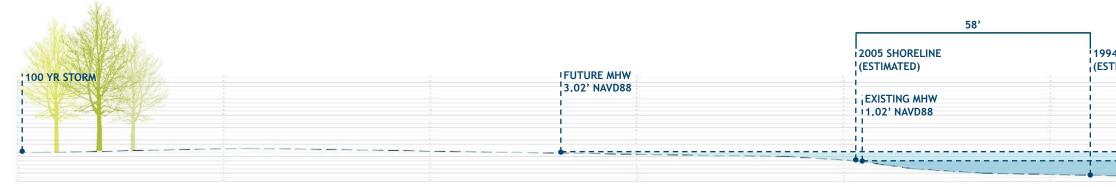
- MHW FUTURE





INTERTIDAL COVE SECTION

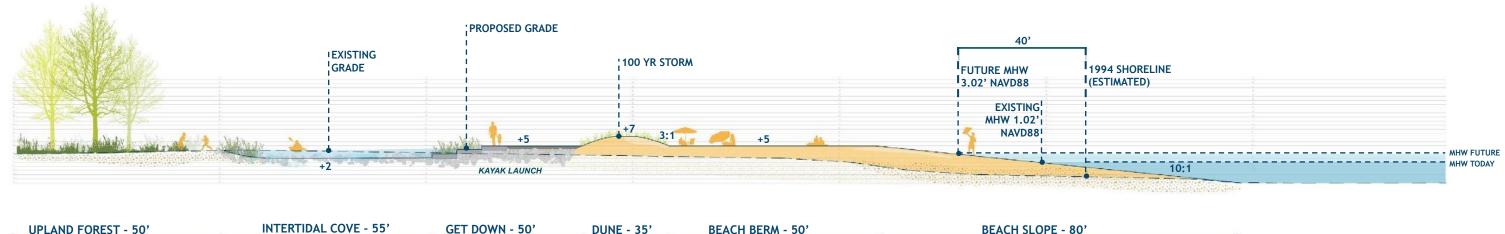
EXISTING CONDITION



UPLAND FOREST - 50'

EXISTING PARK AND BEACH

PROPOSED DESIGN



I	UPLAND FOREST - 50'	INTERTIDAL COVE - 55'	GET DOWN - 50'	DUNE - 35'	BEACH BERM - 50'	BEACH SLOPE - 80'
			1	1		

1994 SHORELINE (ESTIMATED)

 	MHV

HW FUTURE HW TODAY

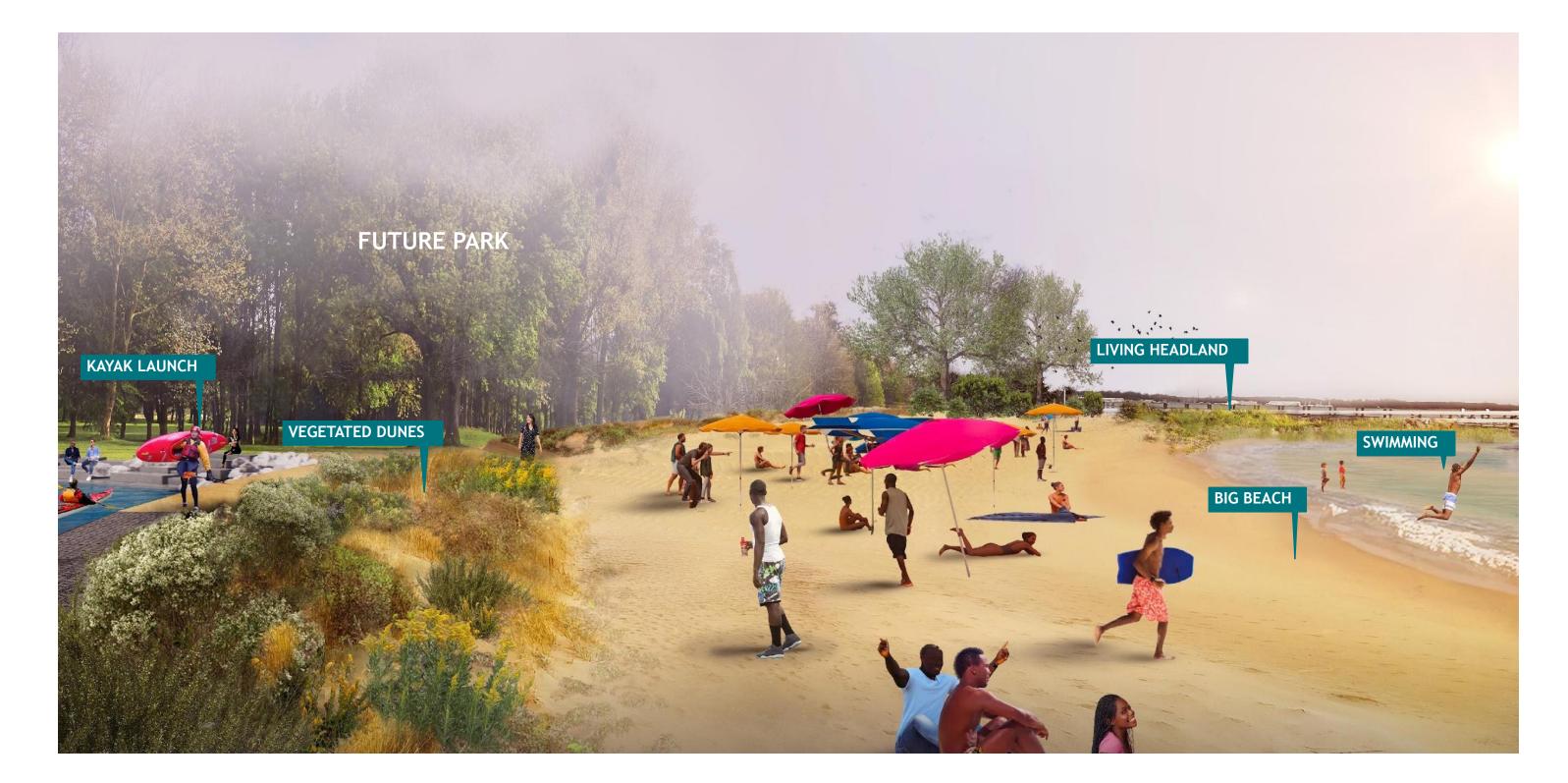


CARR'S BEACH VIEW TODAY



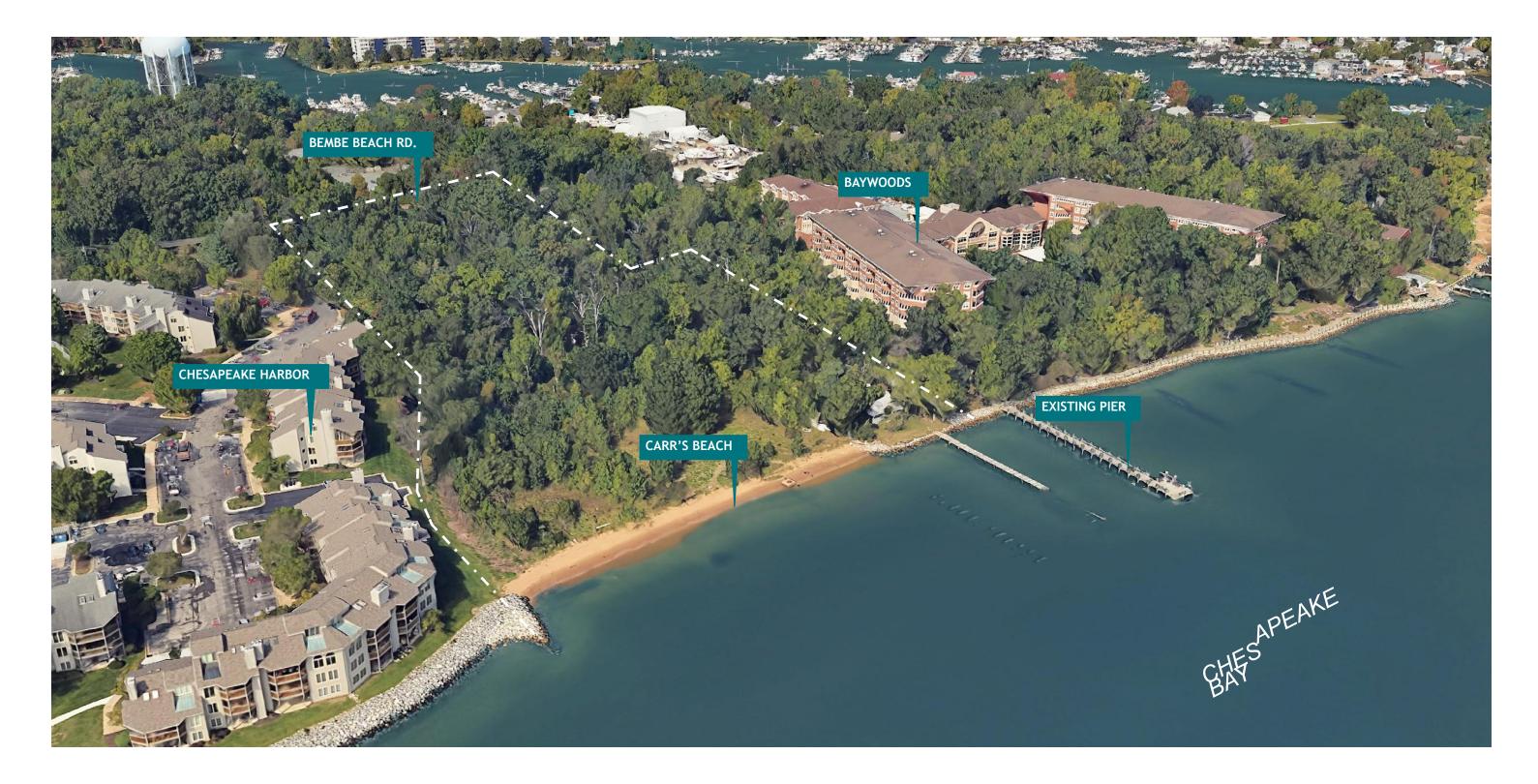


CARR'S BEACH VIEW FUTURE





CARR'S BEACH BIRDSEYE TODAY





CARR'S BEACH BIRDSEYE FUTURE





CARR'S BEACH BIRDSEYE FUTURE



